

IDAHO DEPARTMENT OF FISH & GAME

Jerry M. Conley, . Director

HENRYS LAKE FISH HATCHERY

Annual Report



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by

Gene McPherson
Fish Hatchery Superintendent I

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ABSTRACT

The total number of cutthroat spawners returning to Hatchery Creek to spawn was up considerably this year over last. This resulted in a considerable increase in total cutthroat eggs taken. The hybrid run was down significantly from the 1982 spawning run.

The over-all quality of the cutthroat eggs for the 1982 spawning season was good; there was no apparent soft-shell disease present this year. A portion of the hybrid eggs were heat-treated for sterilization purposes, but they didn't fare well.

Cutthroat eggs were shipped to the Ashton, Mackay, and McCall hatcheries. The hybrids were sent to the Grace Hatchery. The substantial increase in cutthroat eggs taken resulted in having enough cutthroat to use in mountain lake plants.

Author:

Gene McPherson
Fish Hatchery Superintendent I

OBJECTIVES

The objectives for Henrys Lake Hatchery are:

1. To take, eye-up, and ship enough cutthroat eggs to assure a plant of 2.3 million cutthroat fingerling into Henrys Lake in the fall of 1982, with any surplus cutthroat being planted into mountain lakes.
2. To cross a specific amount of cutthroat eggs with rainbow milt to form hybrids to assure a plant of approximately 200,000 hybrids into Henrys Lake.
3. To ship eyed cutthroat eggs around the state to various hatcheries for maximum growth and utilization.
4. To hold and rear remaining cutthroat eggs to be planted in the fall wherever they are needed the most.

INTRODUCTION

Henrys Lake Hatchery is located in Region 6 along Highway 87 approximately 55 miles north of Ashton in Fremont County. The hatchery was established in 1922. It now consists of a large building housing the hatchery facilities, office, garage, and storage area. A spawn-house is located near the lake shore with a concrete fish ladder extending into the lake.

The water supply is gravity-flow spring water with an average temperature of 45 F. The hatchery has use rights on one cfs maximum water flow.

There are ten stacks of Heath incubators containing 16 trays each. The eggs are contained in the incubators until hatching and reaching the swim-up stage. They are then transferred to three concrete vats where they are started on feed. Behind the hatchery building there is a dirt pond where fish are reared prior to release into the lake. They are transferred to the dirt pond as soon as they are feeding well and the weather permits.

Water temperature is only 45 F. This permits slow growth in the hatchery. Outside solar heating brings the water temperature to 53 F; however, this is for only two-to-three months each year.

FISH PRODUCTION

The number of cutthroat spawners counted, marked, and spawned totaled 3,625, an increase of 700 fish over the 1981 run. The breakdown of the cutthroat run was 51% females and 49% males. The average size of the females is 476 mm; average male size, 461 mm.

The number of returning hybrids counted and marked totaled 925, a drop of nearly 1,400 fish. The average size for hybrid females is 598 mm and 588 mm for males.

The cutthroat egg take totaled 4,968,502, with 537,072 of these being converted hybrids. Approximately 186,000 eggs were taken from hybrid females and fertilized with cutthroat milt.

The remaining 424,000 cutthroat eggs were held and reared at Henrys Lake Hatchery. There were 168,400 hybrid x cutthroat eggs also held and reared at Henrys Lake.

There were 339,478 cutthroat planted from Henrys Lake Hatchery in the 1982 fish year. Of these, 173,926 were planted in Henrys Lake via the fish ladder; 151,268 were planted in the Teton drainage; and 14,284 were planted in mountain lakes in Clark County. The 112,966 surviving hybrid x cutthroat fry were planted on the West End of Island Park Reservoir.

HATCHERY IMPROVEMENTS

Pond needs have caused a problem every year, with fish becoming entangled during fall drawdown of the dirt pond. Hopefully, this problem has been resolved this year. Dick Wilson, Land Manager at Parker, brought a cat in, and in two hours, cleaned several year's accumulation of muck from the bottom of the pond and also made improvements to the pond banks.

A burglar alarm was installed on the fish ladder and wired to an alarm bell in the superintendent residence. This device works extremely well. To date, the two times it tripped, fish thieves were apprehended.

An airtight wood stove and rock work was installed in the superintendent residence. This is a welcome improvement over the old standby oil burner. Luckily, there is a plentiful supply of firewood nearby.

Finally, the pole fence around the yard received a much-needed coat of stain.

Table 1. Spawn report, 1982.

Species	Total eggs	% eye-up	Total eyed eggs.
CTT	4,431,430	88	3,899,262
CTTxRBT	537,072	63	343,352
HYBxCTT	186,760	90	168,400

Table 2. Egg shipments, 1982

Species	Ashton	Grace	Mackay	McCall
CTT	762,580	-	2,308,646	404,020
CTTxRBT	-	343,352	-	-

MISCELLANEOUS ACTIVITIES

During the spawning season, data were collected by the spawn-taker concerning numbers of fish, species, sex ratio, and a 10% size sample of all returning fish.

A heat treatment of hybrid eggs was attempted by the research biologist. This treatment involves heating the eggs ten minutes after fertilization for ten minutes in a water bath at 27-28 C. The purpose for this treatment was to sterilize the hybrids to be planted in Henrys Lake in the fall of 1982. The attempted treatment was followed by 48% mortality to the eyed stage. The results showed a success rate of sterilization of only 10-12%.

About one day per week was spent doing angler interviews, either of bank fishermen or out in the boat on Island Park Reservoir.

COMMENTS

There appears to be a great concern in the area for the improvement of fishing on Henrys Lake. This becomes clearly evident this year in the cooperation that the Department has received from the two sportsmen's groups in the area. Both groups appear to be putting forth effort to raise money to help put fish screens in some of the tributaries. Another example of the enthusiasm was the excellent turnout of people and boats to help scatter-plant two large truckloads of cutthroat. Since we seem to have the support of the sportsmen, we must be doing something right.

STAFF

The 1982 staff at Henrys Lake Hatchery consisted of one permanent employee. A special thanks to my wife for feeding the fish and watching over the hatchery while I attended meetings and shipped eggs.

Fish Hatchery Superintendent I
Wife

Gene McPherson
Donna McPherson